

01-28-02 A



01/25/02  
JC984 U.S. PTO

MH-5091

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

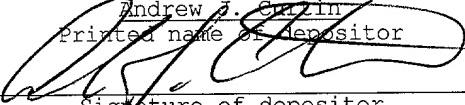


"EXPRESS MAIL" mailing label number: EV 004299877 US

Date of Deposit: 1-24-02

I hereby certify that this paper or fee is being deposited with the United States Postal Service "EXPRESS MAIL Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Andrew J. Green  
Printed name of depositor

  
Signature of depositor

\* \* \*

TRANSMITTAL LETTER

The Assistant Commissioner for Patents  
Washington, D.C. 20231

**ATTN: BOX PATENT APPLICATION**

Sir:

Transmitted herewith for filing is the patent application of: Xiaoqiang Ma, Hisashi Kobayashi, Stuart c. Schwartz

**FOR: Expectation-Maximization-Based Channel Estimation and Signal Detection for Wireless Communications Systems**

Enclosed are:

- [31] pages of specification, claims and abstract
- [7] sheet of formal drawings
- [x] Declaration and Power of Attorney
- [X] Assignment of the application
- [ ] Information Disclosure Statement

The filing fee is calculated as follows:

CLAIMS AS FILED				
	NUMBER FILED	NUMBER EXTRA	LARGE ENTITY	AMOUNT
<u>Basic Fee</u>	20	0		\$ 740.00
<u>Total Claims</u>	20	-20 =	x	20.00
<u>Independent Claims</u>	2	-3 =		\$80.00
<u>Assignment Recording Fee</u>				40.00
<u>Multiple Dependent Claim Fee</u>				40.00
				270.00

Other

TOTAL FEE	\$ 780.00
-----------	-----------

- [X] Please record the accompanying Assignment.
- [X] Please charge Deposit Account No. 50-0749 in the amount of \$780.00 for filing fees.
- [ ] Check in the amount of \$\_\_\_\_\_ for Filing Fee.
- [X] The Assistant Commissioner for Patents is hereby authorized to charge any additional fees due or credit any overpayment to Deposit Account No. 50-0749.

All future correspondence should be addressed to:

Patent Department  
Mitsubishi Electric Research Laboratories, Inc.  
201 Broadway  
Cambridge, Massachusetts 02139

Duplicate copies of this letter are enclosed.

Respectfully submitted,  
MITSUBISHI ELECTRIC RESEARCH LABORATORIES, INC.

By:



Andrew J. Curtin  
Reg. No.: 48,485  
Attorney for Assignee

Mitsubishi Electric Research Laboratories, Inc.  
201 Broadway  
Cambridge, Massachusetts 02139  
(617) 621-7539

Customer No. 022199